

LIST OF CURRENT CLAIMS

Claim 1 (Currently Amended) A method for protecting data having an authentication phase comprising the following steps:

- (a) providing a biometric feature;
- (b) digitizing the biometric feature to create digitized biometric authentication feature data;

(c) recovering initialization biometric feature data measured in an initialization phase from said biometric authentication feature data on the basis of a coding-theory method within a freely selectable tolerance interval;

[[c]](d) decrypting an encrypted code word on the basis of the digitized recovered initialization biometric authentication feature data thereby obtaining a decrypted code word, and;

[[d]](e) recovering secret data from the decrypted code word on the basis of a coding-theory method within a freely selectable tolerance interval;

wherein said encrypted code word is formed by digitizing a biometric feature to create a digital representation of the biometric feature, fault-tolerantly encoding the secret data to create a code word, and encrypting the code word secret data on the basis of the digital representation of the biometric feature.

Claim 2 (Previously Presented) The method according to claim 1 having an initialization phase comprising:

after providing a biometric feature, digitizing the biometric feature to create a digital representation of said biometric feature;

providing secret data;

encrypting on the basis of the digital representation of said biometric feature and fault tolerantly coding the secret data.

Claim 3 (Previously Presented) The method according to claim 2 including using the consecutive steps:

- fault-tolerantly coding the secret data to create a code word;
- encrypting the code word on the basis of the digital representation of said biometric feature to create an encrypted code word.

Claim 4 (Previously Presented) The method according to claim 3, wherein the code word is generated by a generating matrix.

Claim 5 (Previously Presented) The method according to claim 2 including the step of creating initial correction data to describe the space of allowed code words.

Claim 6 (Previously Presented) The method according to claim 2 including the step of providing initialization correction data on the basis of the digitized biometric feature data.

Claim 7 (Previously Presented) The method according to claim 1 including the steps:

- creating authentication correction data on the basis of the digitized biometric authentication feature data;
- recovering the digitized biometric feature data on the basis of the authentication and initial correction data;
- decrypting encrypted secret data on the basis of the recovered digitized biometric feature data.

Claim 8 (Previously Presented) The method according to claim 7, wherein the initial correction data are created by calculation of the digitized biometric feature data modulo  $n$ .

Claim 9 (Previously Presented) The method according to claim 7, wherein the authentication correction data are created by calculation of the authentication feature data modulo  $n$ .

Claim 10 (Previously Presented) The method according to claim 2, including using user-specific initial correction data and/or user-specific fault-tolerant coding.

Claim 11 (Previously Presented) The method according to claim 2, wherein a public and a secret part are separated and determined or estimated from the biometric feature.

Claim 12 (Previously Presented) The method according to claim 11, wherein the separation into a public and a secret part of the biometric feature is effected with the aid of empirical inquiries.

Claim 13 (Previously Presented) The method according to claim 2, wherein a hash value is created from the digitized biometric feature data with the aid of a hash function.

Claim 14 (Previously Presented) The method according to claim 1, wherein a hash value is created from the digitized biometric authentication feature data with the aid of a hash function.

Claim 15 (Previously Presented) The method according to claim 1, wherein the biometric feature is a behavioral biometric.

Claim 16 (Previously Presented) The method according to claim 1, wherein the biometric feature consists of a handwritten signature.

Claim 17 (Previously Presented) The method according to claim 16, wherein the handwritten signature is broken down into a public and a secret part and the secret part is a proper subset of the dynamic information of the signature.

Claim 18 (Previously Presented) The method according to claim 1, wherein the providing and/or digitizing of the biometric feature is effected several times.

Claim 19 (Previously Presented) The method according to claim 1, wherein the secret data are generated with a public-key method.

Claim 20 (Currently Amended) An apparatus for protecting data, comprising:  
digitizing apparatus arranged to digitize a biometric feature to thereby create a ~~digital representation of said biometric feature~~ digitized biometric authentication feature data;

a secret data generator comprising;  
apparatus arranged to fault-tolerantly code and decode the secret data; and  
encrypting and decrypting apparatus arranged to encrypt and decrypt the fault-tolerantly coded secret data with the aid of the ~~digital representation of said biometric feature~~ digitized biometric authentication feature data;

wherein an initialization biometric feature data measured in an initialization phase is recovered from said biometric authentication feature data on the basis of a coding-theory method within a freely selectable tolerance interval, and an encrypted code word is decrypted on the basis of the digital representation of said biometric feature recovered initialization biometric feature data, thereby obtaining a decrypted code word and;

whereby the secret data is recovered from the decrypted code word ~~on the basis of a coding theory method within a freely selectable tolerance interval~~.

Claim 21 (Previously Presented) The apparatus according to claim 20 including apparatus arranged to create code words.

Claim 22 (Previously Presented) The apparatus according to claim 20 including apparatus arranged to create initial correction data.

Claim 23 (Previously Presented) The apparatus according to claim 20 including apparatus arranged to provide a hash value.

Claim 24 (Previously Presented) The apparatus according to claim 20 including apparatus arranged to break down the biometric feature into a public and a secret part.

Claim 25 (Previously Presented) The apparatus according to claim 24 wherein the apparatus arranged to break down into a public and a secret part the biometric feature is further arranged to do so with the aid of statistical inquiries.

Claim 26 (Previously Presented) The apparatus according to claim 20, including apparatus arranged to capture a handwritten signature as a biometric feature.